Claims

[c1]   1. A method for creating an application which interacts with at least one external object, said method comprising the steps of:

learn from the object's interface information concerning the methods and fields contained in said external object by reflection;

combine the information obtained from the external object with selected default parameters sufficient to describe a visual displays for each accessor method and field in said external object;

store the description of the visual display; and

using such stored description, build a software application having such visual displays which interacts with said external object.

[c2]   2. A method according to claim 1 wherein said description of the visual display is stored as a serialized object.

[c3]   3. A method according to claim 1 wherein the resulting application will have a window which is connected to the external object.

[c4]   4. A method according to claim 1 where the resulting application will interact with more than one external object and where each external object will have a separate window connected to it.

[c5]   5. A method according to claim 1 where the resulting application will interact with more than one external object and were the resulting application will have at least one window which interacts with more than one external object.

[c6]   6. A method according to claim 1 where said description of the visual display is edited prior to the building of the application.

[c7]   7. A method according to claim 6 wherein in editing said description of the visual display, programming code is associated with elements in the description.

[c8]   8. A method according to claim 7 wherein said programming code manipulates an external object.

[c9]   9.A method according to claim 1 wherein the description of the visual object defines text fields and dialogs for interaction with the methods and fields of the external object.

[c10]   10.A method according to claim 9 wherein the description of the visual object allows the use of labels for the text fields and dialogs in alternative human languages.

[c11]   11.A method according to claim 9 wherein the description of the visual object provides for the use of accessability features for disabled users.

[c12]   12.A method according to claim 1 wherein the description of the visual object is in a format which allows it to be used on multiple computer platforms.

[c13]   13.A method for creating an application which interacts with at least one external interface, said method comprising the steps of:
         learn from the external interface information concerning the methods and fields controlled by said external interface by reflection;
         combine the information so obtained with selected default parameters sufficient to describe a visual displays for each accessor method and field controlled by said external interface;
         store the description of the visual display; and
         using such stored description, build a software application having such visual displays which interacts with said external object.

[c14]   14.A method according to claim 13 wherein said description of the visual display is stored as a serialized object.

[c15]   15.A method according to claim 13 wherein the resulting application will have a window which is connected to the external object.

[c16]   16.A method according to claim 13 where the resulting application will interact with more than one external interface and where each external interface will have a separate window connected to it.

[c17]   17. A method according to claim 13 where the resulting application will interact with more than one external object and were the resulting application will have at least one window which interacts with more than one external object.

[c18]   18. A method according to claim 13 where said description of the visual display is edited prior to the building of the application.

[c19]   19. A method according to claim 18 wherein in editing said description of the visual display, programming code is associated with elements in the description.

[c20]   20. A method according to claim 19 wherein the programming code manipulates an external interface.

[c21]   21. A method according to claim 13 wherein the description of the visual object defines text fields and dialogs for interaction with the methods and fields of the external interface.

[c22]   22. A method according to claim 21 wherein the description of the visual object allows the use of labels for the text fields and dialogs in alternative human languages.

[c23]   23. A method according to claim 21 wherein the description of the visual object allows for use of accessability features for disabled users.

[c24]   24. A method according to claim 13 wherein the description of the visual object is in a format which allows it to be used on multiple computer platforms.

[c25]   25. A method for creating a description of an application which interacts with at least one external object, said method comprising the steps of:
learn from the object's interface information concerning the methods and fields contained in said external object by reflection;
combine the information obtained from the external object with selected default parameters sufficient to describe a visual displays for each accessor

method and field in said external object; and

store the descriptions of the visual display.

[c26]   26.A method according to claim 25 wherein said description of the visual display is stored as a serialized object.

[c27]   27.A method according to claim 25 wherein said description includes a description of a window to be connected to the external object.

[c28]   28.A method according to claim 25 wherein said description includes a description of a window which can interact with two or more external objects.

[c29]   29.A method according to claim 25 where said description of the visual display is edited.

[c30]   30.A method according to claim 29 wherein in editing said description of the visual display, programming code is associated with elements in the description.

[c31]   31.A method according to claim 30 wherein the programming code can manipulate an external object.

[c32]   32.A method according to claim 29 wherein the description of the visual object defines text fields and dialogs for interaction with the methods and fields of the external object.

[c33]   33.A method according to claim 32 wherein the description of the visual object allows the use of labels for the text fields and dialogs in alternative human languages.

[c34]   34.A method according to claim 32 wherein the description of the visual object allows for use of accessability features for disabled users.

[c35]   35.A method according to claim 32 wherein the description of the visual object is in a format which allows it to be used on multiple computer platforms.

[c36]　　36.A method for creating an application from a serialized description of the application which interacts with at least one external object, said method comprising the steps of:
using the stored description, build a software application having such visual displays which interact with said external object, which application operates independently of the software which creates the application.

[c37]　　37.A method according to claim 36 wherein said external object is contained on a computer other than the computer on which the application is built.

[c38]　　38.A method according to claim 36 wherein said external object is contained on a computer other than the computer on which the application is built.

[c39]　　39.A method according to claim 36 wherein said description is constructed on a computer other the where the external object resides.

[c40]　　40.A method according to claim 1 wherein said external object is contained on a computer other than the computer on which the application is built.

[c41]　　41.A method according to claim 1wherein said external object is contained on a computer other than the computer on which the application is built.

[c42]　　42.A method according to claim 1 wherein said description is constructed on a computer other the where the external object resides.